

FIG. 1 Sheet 1/19

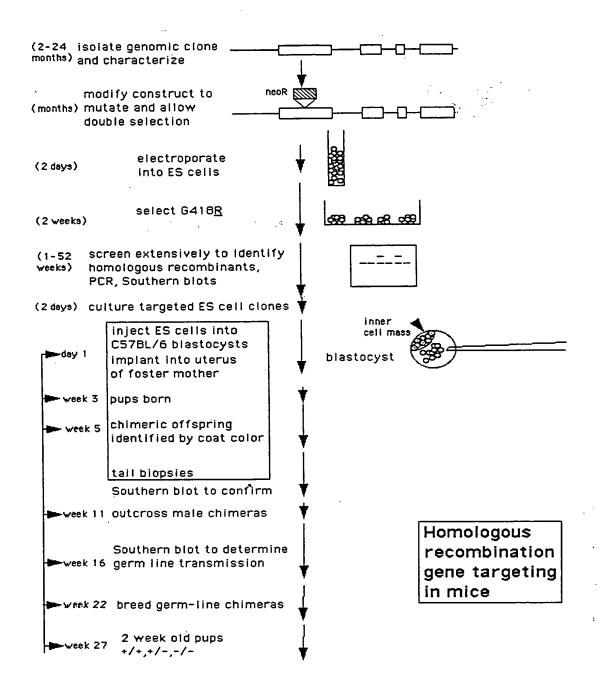


FIG. 2

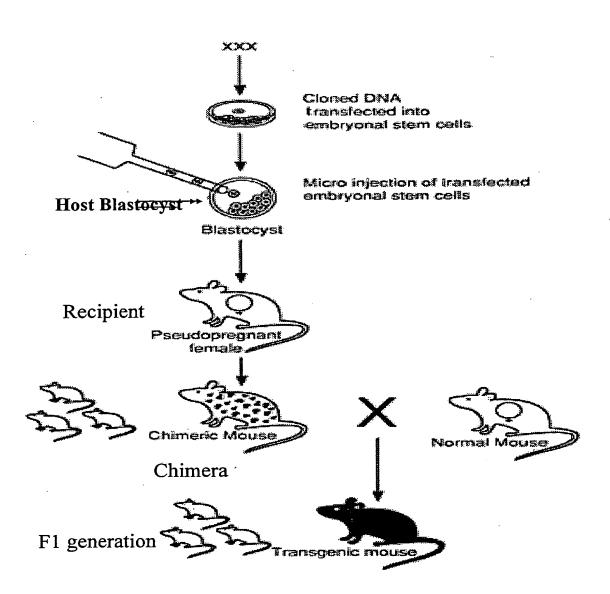


FIG. 3

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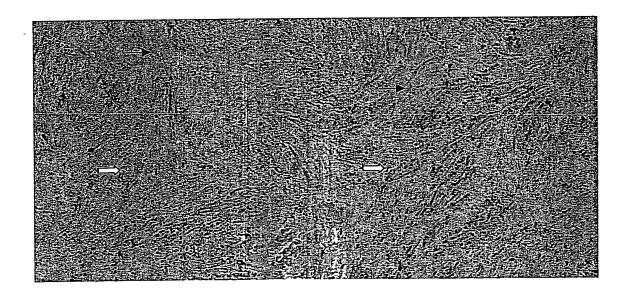


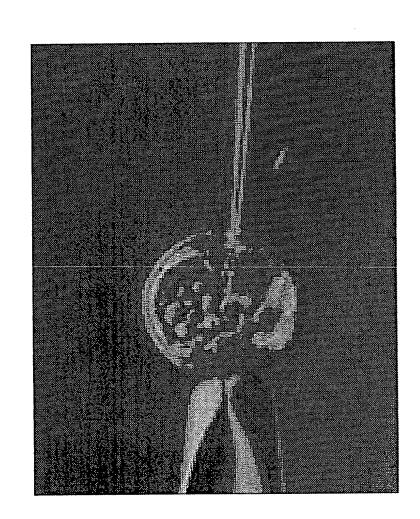
FIG. 4

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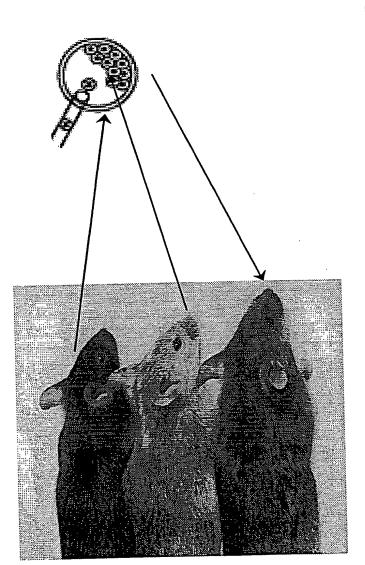
FIG. 5

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ES cells are injected into blastocysts



Coat Color and Chimerism



"Agouti into black"

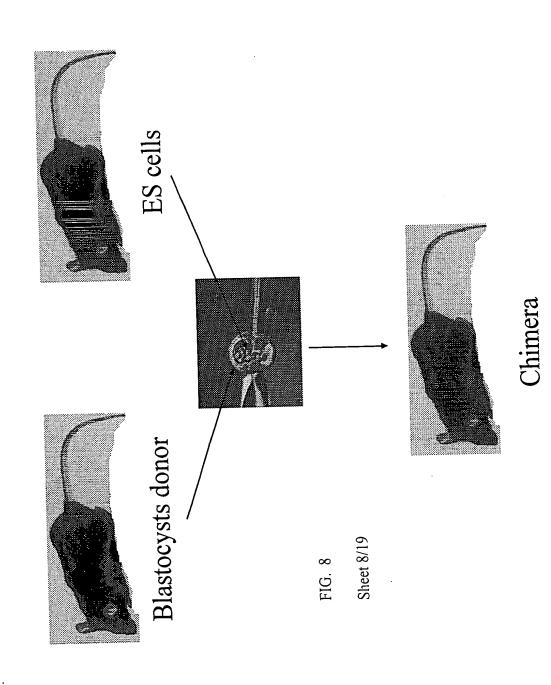
FIG. 6

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FIG. 7

Pure background Sheet 7/19

"Black into black"



Summary of germ line transmission of C57 BL/6Jderived ES cell lines

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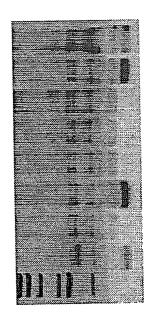
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"Black into black"

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PCR identification of founders





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neomycin positive DNA); lane 3, negative control (wild type DNA); lane 4-7, PCR identification. Lane 1, DNA ladder; lane 2, positive control (known GFP founders 2-5; lane 8 and 9, p53 founders 1 and 2. "Black into black"

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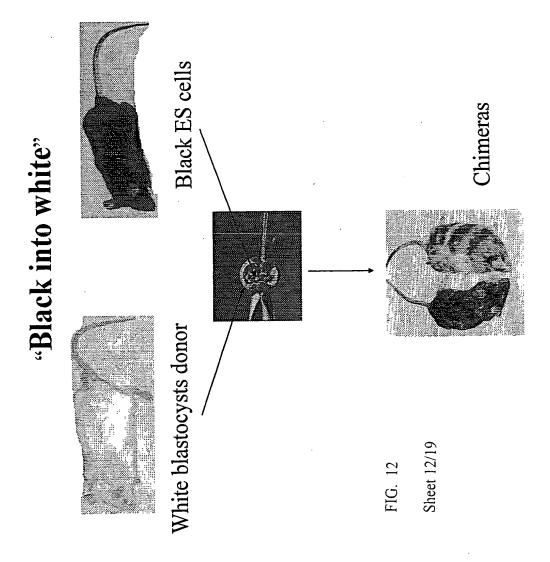
Southern blotting of founders and their offsprings



3

Southern blotting: Lane 1-5, P53 founder 1-5; lane 6-8, p53 F1 offspring 1-3.

"Black into black"



Sum mary of germ line transmission of C57 BL/6J-derived E S cell lines

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"Black into white"

Chimeras from IC1 ES cells injected into albino C57 BL/6J blastocysts

ES cells

Chimeras

Blastocysts

donor



"Black into white"

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FIG. 14

"Black into black"

Genetically modified ES cells (black)

Injected into C57BL/6 (black)

Germline transmission

Advantages

- Pure background
- High efficiency (100% germline transmission)
- Reduction in time and cost

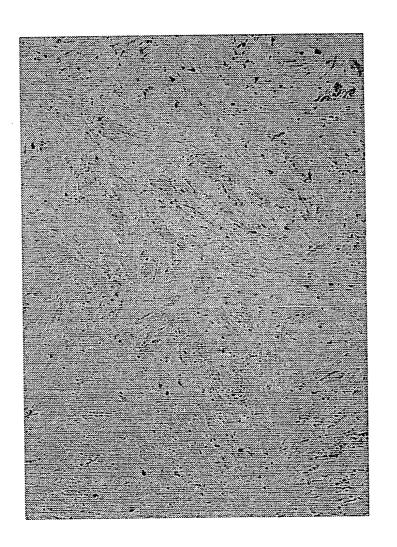
FIG. 15

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FIG. 16

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C57BL/6J-Tyrc-2J -derived ES cell lines

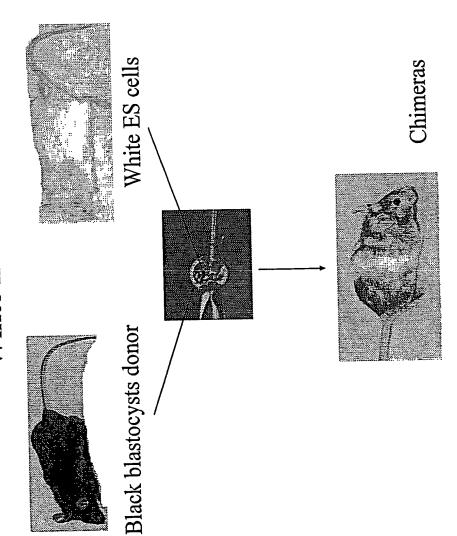


"White into black"

FIG. 17

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"White into black"



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Results of germline transmission of C57BL/6J-Tyr^{c-2J} -derived ES cell lines

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albino C57 ES cells into black C57 blastocysts A chimera produced from the injection of

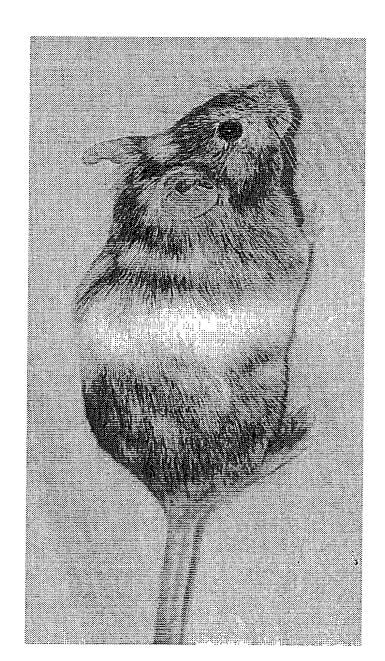


FIG. 19

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